

UNITED STATES GENERAL ACCOUNTING OFFICE WASHINGTON, D.C. 20548

PROGRAM ANALYSIS

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B-203090



The Honorable John Heinz
Chairman, Subcommittee on Economic Growth,
Employment and Revenue Sharing
Committee on Finance
United States Senate

Dear Mr. Chairman:

Subject: Comments on Employment Tax Credits (PAD-81-73)

As agreed with Mr. George Pieler, Senate Finance Committee, we are submitting the following information and analyses for the record of your April 3, 1981, hearings on employment tax credits. Our observations and comments on the Targeted Jobs Tax Credit (TJTC) program and several other related credit programs are drawn from an ongoing project in this area. For this project we surveyed 1,000 firms, interviewed interested parties, reviewed numerous studies on the effects of changes in the minimum wage on employment, and developed appropriate economic and empirical analyses. The results of the project are intended to be a report to the Congress. We hope that our observations will be of use to you at this time. When we complete our report later this year, we will provide copies to you.

Our comments are in two parts: a brief, non-technical statement of our major findings, and a more detailed technical statement in the form of an appendix to this letter.

In our study we are analyzing three issues. First, we identify the factors that determine whether wage subsidy programs have a chance of being successful. Will businessmen respond significantly to a reduction in labor cost? What type of workers will be helped most? The evidence suggests that business would respond to an extent that would significantly lessen, but by no means eliminate, unemployment among inexperienced and low skill but otherwise job-ready workers. There is no evidence available that workers with severe employability problems, for example the lack of basic reading skills, can benefit from the wage subsidy approach.

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Our analysis shows that there are problems that can be anticipated in the implementation of a wage subsidy program. The major design problem involves minimizing the loss of tax revenues to the Treasury because the subsidy or tax credit can be claimed by employers for hires that would have occurred anyway. The design problems for labor market programs is especially complex because of the enormous amount of labor turnover (workers going from one job to another) that characterizes our economy. Thus, the number of new hires in any year greatly exceeds the increase in employment levels, with the result that some program designs can result in very large tax losses. Another design issue is the concern that wage subsidies only be used to aid certain sub-groups of workers—usually low skilled, from poor families.

The design of the TJTC program clearly reflects these desires and objectives. The TJTC was targeted very narrowly by socio-economic categories. The hope was to both save tax revenues and increase the impact of the credit on the employment of the target group members. However, our analysis of program data and special surveys suggest that the TJTC's narrow socio-economic targeting approach produced a program that was apparently grossly underutilized and which, in all likelihood, had little impact on the employment levels of the target group members. It appears, perhaps paradoxically, that the target group members would have benefited much more from a program that was not limited to members of their group.

Finally, we analyze three alternative designs that would, hopefully, avoid the pitfalls of narrow targeting encountered by the TJTC and yet would not lead to an excessive outflow of tax revenues. One of the suggested designs targets the credit on "low wage jobs" rather than on any category of individual. Another targets only in the sense that it lowers the cost of hiring low wage workers by a greater percentage than high wage workers and attempts to control tax revenue losses by limiting the credit to firms that show increases in their employment levels. The third combines features of these two and would generate the lowest foregone tax revenues but also the smallest impact on employment levels.

Employment and tax loss effects are estimated for all three designs and the results are contained in Table 2 of the appendix of this report. Unresolved technical issues prevent us from selecting, with certainty, the optimal program design.

Nevertheless, wage subsidies appear to be a potentially useful tool for combatting structural unemployment. But wage subsidies are also potentially expensive. Elimination of the minimum wage would probably capture many of the benefits that could be expected from wage subsidies. However, it is important to note that for a number of economic and social policy reasons, eliminating the minimum wage is not a perfect substitute for implementation of a wage subsidy program. Moreover, we have not attempted to quantify the costs and benefits associated with such a change in wage policy. Instead, the analysis was intended to bring to the forefront several technical and empirical concerns for consideration by those persons having oversight responsibilities.

If you have any questions on these comments or if we can be of further assistance, please let us know.

Sincerely yours,

Morton A. Myers
Director

Enclosure - 1

TECHNICAL COMMENTS

These detailed comments are organized around a series of questions concerning the rationale for a wage subsidy program, where the Targeted Jobs Tax Credit program has problems, and what alternative program designs exist. In general, the following comments present a number of reasons for having a wage subsidy program, but we raise several practical concerns about the potential success of the program, and alternative ways of accomplishing the same results.

These observations are based in large part on economic analysis. Some of the points tend to be technical in nature. However, we are convinced these technical concerns and empirical issues should be addressed by those persons having oversight responsibilities.

WHY HAVE A WAGE SUBSIDY PROGRAM?

The basic reason a wage subsidy might work is that wage rates may not be able to fall low enough to make it profitable for firms to create enough job vacancies to absorb all the available low skill, but otherwise job ready, workers. does not mean that in the absence of these rigidities there would be no unemployment. Lack of information is pervasive in labor markets and shifts in supply and demand conditions guarantee that the level of structural unemployment would be significant even if the relative wages of low skill workers were perfectly flexible downward. What it does mean is that the rigidities cause the duration of the average spell of unemployment to be greater than the minimum required for efficient resource allocation. Also, some secondary workers who do not lack basic job skills, may nevertheless, choose to opt out of the labor force altogether when the required duration of job search lengthens.

A wage subsidy can help overcome these rigidities by lowering the cost of labor to the firm. The firm's desired level of output will increase, job vacancies will increase, actual employment will expand, actual output will increase, unemployment will decrease and labor force participation will increase somewhat. This effect will be greater if the responsiveness of the firm's demand for unskilled labor to changes in its cost—what economists call the "elasticity of demand"—is greater.

Minimum wage legislation, because it establishes a legal floor to wages in covered occupations, can help to create situations of excess labor supply. The extent to which labor markets will be characterized by much larger numbers of individuals willing to work at the minimum than there are available jobs at

that rate, depends on its level relative to all other wage rates. If the excess supply of labor at the minimum wage is small, a wage subsidy may succeed only in bidding up to the prevailing wage for low wage workers without large increases in employment. If the excess supply of labor at the minimum wage is large, the subsidy can have significant employment effects. The table on the following page illustrates this phenomena.

Market demand for low skilled workers is represented in the table by D_0D_0 . If S_0S_0 represents the supply of unskilled workers actively seeking employment, then ce is the excess supply at the minimum wage (MC). A wage subsidy lowers the cost of labor to MC-WS and at that net wage, employers are willing to increase employment by ab. Since ab is much larger than ce, employers will bid against one another for the available supply with the result that prevailing wages in this market will rise above MC and incremental employment may be minimal. If, in contrast, the supply of labor is S_1S_1 , then the excess-supply is cd which exceeds ab. Consequently, employers by utilizing the subsidy will be able to hire all the workers they want at the minimum wage and employment will increase from $0-E_{mC}$ to $0-E_{mC}^+$.

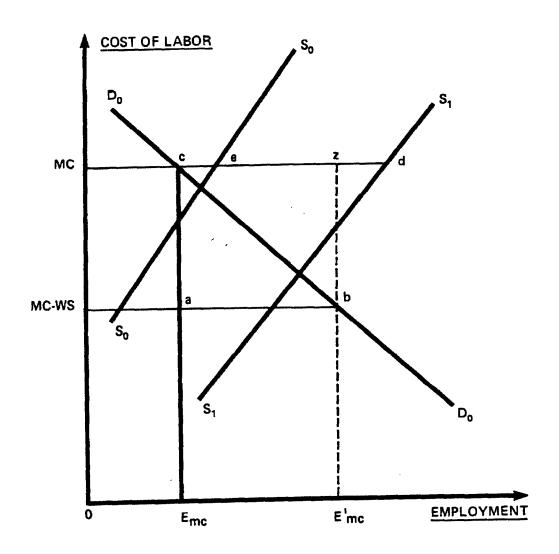
Surveys that have interviewed teenagers who were unemployed or not in the labor force suggest that significant numbers of these teenagers would accept jobs even at wages only 75 percent of the then current minimum wage. Recent changes in the coverage and level of the minimum wage also suggest that they probably have created some amount of excess supply since 1977. Since then the coverage has jumped significantly at least for teenagers and the ratio of the minimium to the average hourly earnings of production workers in the private sector has drifted up to .48 from .44. Thus, even if we assume that in 1977 there was no excess-supply being created by the minimum, by 1981 it is likely that there is.

WHAT IS WRONG WITH THE TJTC PROGRAM?

The implementation of a wage subsidy program involves tradeoffs between maximizing the impact on employment and minimizing
the "excess" outflow of tax revenues that results from the credit
being used to hire many workers who would have been hired in its
absence. All the programs that have been aimed at reducing structural unemployment have allowed any hire that meets the sociodemographic requirements to qualify for the subsidy. In principle,
of course, this need not be the case. Eligibility could be defined
in terms of increments to employment levels so that a firm that
did not increase its employment level of the target group would
not qualify no matter how many hires with the requisite sociodemographic characteristics it made. However, as we discuss below
this marginal employment approach may raise serious administrative
problems for counter-structural programs.

TABLE 1

Role of Excess-Supply Conditions in Determining Effects of a Wage Subsidy



MC = minimum cost of labor without WS = minimum wage payment MC - WS = minimum cost of labor with a wage subsidy ab = desired increment in employment level with a wage subsidy ce = available excess-supply if supply curve is S_0S_0 cd = available excess-supply if supply curve is S_1S_1 DoDo = demand for labor zd = excess-supply at the new equilibrium

Although enormous numbers of workers are hired each year at all skill levels, primarily because of job and labor force turnover, the net increase in employment levels is much less. Recent estimates of labor turnover based on Social Security files suggest that in 1979 there may have been as many as 58 million new hires in the Private Business Sector (PBS). These, of course, do not all represent "full year" hires since many individuals change jobs three and even four times a year. Current Population Survey data suggest that about one half of new hires are accounted for by individuals who make only one job accession during the year and the remaining half by a much smaller group of high turnover individuals who account for three job accessions each on the average. On these assumptions, the 58 million hires amounted to 29 million actual full-year hires and about 10 million "equivalent full-year" hires or 39 million full-year hires in all. If each full-year hire had cost the Treasury \$1,500 in lost revenues the aggregate loss would have been \$58.5 billion.

The design of the TJTC program clearly reflects this problem. The approach of those who designed the TJTC was to target the credit very narrowly by socio-economic categories. The hope may have been to both save tax revenues and increase the net employment effect. Thus, if the target group is only one sub-group of low skill labor then their net employment effect should be greater because there are more substitution possibilities—e.g., economically disadvantaged 18-24 year olds can be substituted for non-economically disadvantaged 18-24 year olds for all low skill workers over 24. If some more inclusive group were covered—e.g., all low wage jobs—these extra substitution possibilities would not be available.

Our analysis of data on the TJTC and other credit programs as well as the results of our own survey of 1,000 firms, suggest that the TJTC's very narrow socio-economic targeting approach produced a program that was apparently grossly underutilized and which in all likelihood had zero net impact on the employment levels of the target group members. It appears, perhaps, paradoxically, that the target group members would have benefited much more from a program that was not limited to members of their group.

For the period October 1, 1979, to September 31, 1980, (which began a full 7 months after the program began processing credit claims) program data on the TJTC show that for the category "Economically Disadvantaged Youth," 95,510 certifications had been issued. This means that businessmen will apply for approximately this many tax credits for youth hired in this category during this period. During this same period we now estimate that about 4.1 million new hires of economically disadvantaged youth 18-24 took place in the Private Business Sector. On our assumptions (see above) this was composed of 2.0 million actual full year hires and .6 equivalent full year hires. This amounts to a "take-up" rate (certifications/actual eligible hires) of only

2.3 percent on all hires, 3.6 percent on all full year hires and 4.7 percent on actual full year hires. And although these low take-up rates do not necessarily mean that there was no net employment effect they do imply that any effect may have been very small. Also, it may have been at the expense of other low wage non-targeted workers. 1/

We attempted to determine the reasons underlying the low utilization. For example, we found that the New Jobs Tax Credit (NJTC) program of 1977-78 had a take up rate of about 95 percent. A salient feature of this program was that it was not targeted by any socio-economic categories. Also, the category "work study program student" in the TJTC appears to have a much higher take up rate than the "economically disadvantaged" category.

We obtained more direct evidence on the underutilization issue from a mail survey of 1,000 private firms on their knowledge and use of the TJTC.

About 30 percent of the firms who responded to the survey said they had used, were planning to use, or would use (now that they knew about the program) the credit. The firms who had not used and did not plan to use the credit were asked why. They were about equally divided between answers that blamed their own business circumstances (e.g., declining sales) and answers that blamed some feature of the credit's design (e.g., considered the procedure too troublesome to pursue). These non-users were then asked if they would use a credit program that was targeted very differently. One option described was a program targeted at low wage jobs so that they could hire anyone they wanted to fill the job (and qualify for the credit) as long as the job being filled did not pay more than \$5 an hour. The other option resembled the New Jobs Tax Credit in that the firms were told that any new hire during the year would qualify for the credit. Overall, 40 percent of the non-users of the current targeted program said they would use the wage targeted program, and 59 percent would use the program applicable to any hire. The nonusers firms who had given a program design reason for not using the targeted program were more likely to say they would use a redesigned program.

Interestingly, firms who made up the 30 percent who used or were going to use the Targeted credit were much more likely than

^{1/}Many observers of the TJTC have noted that over two-thirds of
the TJTC certifications for the "economically disadvantaged
youth" category were made "retroactively"--i.e., more than 15
days of employment elapsed before the firm filed for a certification. Although highly circumstantial, this is further evidence
that the TJTC did not cause any net increase in the employment
of the target group.

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the non-users to change their behavior in response to the redesigned programs; 76.3 percent said they would increase their utilization of the credit if it were wage rate targeted; and 88.3 percent said they would increase utilization if any hire were eligible.

In sum, the survey results strongly suggest that by even moderately reducing the specificity of the targeting mechanism (e.g., wage rate targeting) one can greatly increase the take up rate of the subsidy program. However, precisely why the narrow targeting reduces utilization is still not clear.

Target individuals who apply for jobs may not wish to reveal to a potential employer their membership in the target group if the grouping has a demeaning connotation like "economically disadvantaged" or "welfare recipient". Firms may also be hesitant about asking prospective employees about their membership in these groups. Firms may also have very negative expectations about the types of individuals that would be referred by the local certifying agency (Employment Service, local AFDC office, etc.,) and will make no effort to participate even though they know about the credit.

Significant utilization of a wage subsidy may require some lead time and preparatory investment and firms may not be willing to undertake it with a very narrowly targeted credit. The quantity and characteristics of the prospective supply may be too uncertain for a group like "economically disadvantaged youth," ages 18-24.

ALTERNATIVE PROGRAM DESIGNS

The problem is how to design an employment credit program that will give firms maximum latitude while not causing a massive outflow in the form of foregone tax revenues. Note that this view assumes that the low utilization of the highly targeted programs is symptomatic of non-effectiveness.

One approach would be to have a NJTC-type program which would cover any category of worker (therefore avoiding the take up problem due to socio-economic targeting) and would attempt to hold down tax revenue losses by only covering increments to employment levels in some base year. In order to help low productivity workers as much as possible the subsidy would have to be applicable for a number of years to each eligible worker hired which increases annual tax losses by a factor approximately equal to the number of years of coverage. This approach would be a significant improvement over the TJTC but has some problems of its own. The major one has to do with the possible effect of the marginal eligibility rule on the net-employment effect. The problem here is similar to having a low take up rate. Some firms will not be able to make use of the credit (e.g., because they are reducing employment levels) and they may have difficulty

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recruiting their usual quality worker for whatever replacement demand is generated by labor turnover. It is difficult to know the significance of this problem without detailed data on the distribution of individual firms (i.e., tax filing units) with respect to employment changes through time, and how much turnover demand actually resides in firms that are reducing the levels of their employment. In general, this approach is very appealing in that it would appear to guarantee a very high take up rate and at the same time keep overall tax revenue losses within plausible bonds.

Another approach would be to target the credit on low wage jobs rather than on any particular group of people and to use an any-new-hire rule like the TJTC in place of the marginal hire rule. This has the advantage of avoiding adverse problems inherent in the marginal hiring approach but raises possible new problems with regard to public sentiment toward the employer. In conversations with businessmen (while designing our survey instrument) we detected a definite hesitancy on their part to characterize any of their jobs as "low wage" jobs.

The table on the following page summarizes our estimates of the total annual budget cost (foregone tax revenues if a tax credit form is used) and net employment effects for the two types of programs just described, along with a third design that represents a cross between the other two.

In arriving at these estimates, we assume that each program covers an eligible individual (or eligible "slot" in the case of the untargeted marginal employment program) for 2 years. Further, we assume a subsidy of \$1,500 and for the purpose of deriving the net employment effect, that this represented a 20 percent decline in the cost of low skill labor to all private firms. We also assumed an average marginal tax rate of 40 percent so that the net tax loss per eligible hire was \$900. A cursory review of the results might lead one to select the second alternative. However, several caveats are in order.

First, it is important to note that we have not attempted to investigate the administrative feasibility of any of these designs, or how the net employment effect might vary by administrative design. These are crucial issues with regard to the two marginal employment alternatives.

Second, firms may have strong incentives to purposely go through a sequence of employment decreases and increases in order to have the credit apply to more and more of their work force. This would both increase the budgetary cost of the credit program, and, perhaps more importantly, reduce the efficiency and productivity of the economy. Similarly, exogenous random fluctuations in output and employment levels may disqualify many firms from participating in a marginal employment subsidy even though their underlying trend in employment was level or increasing. This would

ANNUAL BUDGET COST (OR FOREGONE TAX REVENUE),
NET EMPLOYMENT EFFECT, AND COST PER JOB CREATED,
FOR THREE WAGE SUBSIDY PROGRAMS 1/

	(1) Usual	(2) Annual Budget	(3) Net	(4)	(5)
Type of Program	No. of Hires Per Year 2/ (millions of people)	Cost for Usual No. of Hires (billions of dollars)	Employment Effect (millions of people)	Total Cost (billions of dollars)	Cost per Job Created (dollars)
Low Wage Jobs— Any New hires	5.2	\$ 7.2	1.1	\$ 8.2	\$ 7,272
Low Wage Jobs- Incremental Hire	s				
Only	.2	.4	1.1	1.4	1,272
All JobsIncre- mental Hires Only		2.4	1.1	3.4	3,091
		•			

^{1/}Each program covers an eligible hire for 2 years of employment. All annual cost figures are estimates of what they would be at the end of the second year of program operation.

Sources:

- Column (1): 5.2 million is our estimate of total full year hires in Private Business Sector by workers at or below the minimum wage.
 - 1.2 million is from BLS projections of labor force growth during the 1980's (Paul M. Ryscavage, "BLS Labor Force Projections: A Review of Methods and Results," Monthly Labor Review, April 1979, Department of Labor, BLS, pp. 15-22.)
 - .2 million is 1.2 million x .124, where .124 is the fraction that minimum wage workers were of total workers in 1980.
- Column (2): \$7.2 billion is based on an assumption about how turnover cumulates through the low-wage population. We assumed that by the end of the second year 8.0 million low wage workers would have qualified for the subsidy, i.e, \$7.2 billion=8.0 million x \$900.

^{2/}The number of hires that would have taken place without the credit.

.4 and 2.4 are simply 2 times the annual increments times \$900.

- Column (3): based on an estimate of the demand elasticity for low skilled workers. (This figure is derived from our review of studies on the effects of changes in the minimum wage on employment. Using parameter estimates from these studies we estimate that the desired level of unskilled employment would increase by about 1.1 million (all ages 18+) if a wage subsidy that lowered the cost of unskilled labor by 20 percent were instituted.)
- Column (4): =Col. (2) + (1.1 million x \$900).
- Column (5): =Col. (4) + 1.1 million.

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tend to reduce the net employment effect for the marginal employment designs below that of any new hire programs.

Third, the very low costs for the marginal employment program that targets on low wage jobs must be considered highly tentative. Without further research it is not possible to make reliable comparisons of the cost/effectiveness between marginal employment and any new hire designs.